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Emergency Department Homeless and at Risk Homeless Screening Benchmark Study

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Executive Summary

Individuals experiencing homelessness drastically overutilize emergency department (ED) services compared to non-homeless individuals (Ku et al., 2014). Many unhoused individuals have serious medical and psychosocial needs, which are chronic in nature, and become exacerbated due to poor management while living on the streets (Ku et al., 2014). The health needs of such individuals would be best managed through primary care continuity. However, care coordination becomes complex when a patient does not have a physical address or knowledge of available community resources (Mitchell, León, Byrne, Lin, & Bharel, 2017). By understanding the unique barriers that homeless and at risk homeless patients face, evidence-based public health and organizational interventions can be developed to incentivize outpatient services and deter inappropriate ED utilization (Mitchell et al., 2017). Yet, hospital data substantially underrecognizes the prevalence of patients experiencing homelessness because there is no universal documentation standard (Lee et al., 2019).

Research advises hospital leaders to implement a systematic method to socially triage patients, identify basic needs, and extend existing community resources (Ku et al., 2014). By requiring a standard two question screening process during ED triage asking "In the past two months, have you been in stable housing that you own, rent, or stay in as part of a household?" and "Are you concerned that in the next two months you may NOT have stable housing that you own, rent, or stay in as part of a household?", the identification of unstably housed patients will improve so provisions of support such as social work consultations can be deployed during the hospital encounter (Lee et al., 2019). This simple initiative targeted toward unstably housed patients, has the power to reduce ED readmission rates, improve care quality and continuity, and promote organizational cost effectiveness (Ku et al., 2014).

Rationale for the Project

A retrospective study by Ku et al. (2014) exposes how critical it is to improve the identification and care for homeless patients presenting to the ED. Homeless ED users average more visits than their non-homeless counterparts by 11.3 versus 9.8 visits per year (Ku et al., 2014). However, a majority of visits (64%) resulted in homeless patients being discharged back to the street with no plan to address their homeless status (Ku et al., 2014). Of the 4.9% of patients who did receive a social work consultation to address their homeless status, key referrals and eligibility determinations were made (Ku et al., 2014).

Another study discovered only 64.8% physicians and 16.8% registered nurses (RN) recorded patient housing status in the electronic medical record (Tsai, Weintraub, Gee, & Kushel, 2005). It is common for homeless and at risk homeless individuals to be frequently under identified as many patients do not present to the ED with the typical appearance of homelessness (unkept, dirty fingernails, intoxicated) (Doran et al., 2013). Further complicating the matter, unstably housed patients routinely report a false home address such as a shelter or previous residence during the hospital registration process (Ku et al., 2014).

A retrospective study conducted by Lee et al., (2019) found only 45% of patients were accurately identified as homeless from the registration address on file. When a standard screening process was adopted, the hospital was able to more accurately capture the high prevalence of homeless patients presenting to the ED and deploy resources accordingly (Lee et al., 2019).

A uniform screening protocol paired with interdisciplinary cooperation between doctors, nurses, and social workers positively affects homeless patient ED care around diagnosis, disposition, and appropriate discharge planning (Doran et al., 2013). True ascertainment of

patient housing status allows for early interventions to be deployed such as rapid rehousing or medical respite housing, so a reduced number of patients are discharged from the ED back to the street (Doran et al., 2013). Further, a standardized housing documentation process allows hospital leaders to better understand ED utilization patterns by homeless persons and the ways in which interventions can be tailored to affect the greatest areas of need (Amato, Nobay, Amato, Abar, & Adler, 2019). Only through accurate information are health care organizations able to examine the problem of insecure housing, make informed institutional policy changes, and benchmark the data for future interventions (Amato et al., 2019)

Literature Synthesis

The literature review process consisted of utilizing CINAHL and selecting "all databases". The key words "emergency department" and "homeless" and "social services" were searched which initially returned 110 article results. The search was further narrowed to articles published between the years 2005 and 2020, resulting in 24 articles total. Articles were omitted if they were not published in a scholarly journal and peer reviewed. Articles were selected based upon the highest levels of evidence available to support the PICOT question: Among individuals experiencing homelessness (P) how does a universal screening for homelessness and risk for homelessness (I) compared to no universal screening (C) affect the accurate identification of homeless ED patients (O) at the time of the Emergency Department visit (T)?

Ku et al. (2014) conducted a retrospective cross-sectional study to examine the characteristics and costs associated with individuals experiencing homelessness who had a disproportionately large number of annual ED visits. The sample size included 542 patients who made five or more visits to the ED during the study period of one year (Ku et al., 2014). The study revealed that 64% of ED visits result in homeless patients being discharged back to the

street with only 4% obtaining a specific discharge plan addressing their homeless status (Ku et al., 2014). Ku et al. (2014) determined the inadequate involvement of social services can be partly attributed to the difficulty of capturing housing status if patients are not routinely and directly asked about it. Patients in the study were identified as homeless if they self-reported as "homeless" or "undomiciled", listed a known shelter as their home address during registration, or were identified by a member of the care team as suffering from homelessness (Ku et al., 2014). Only 14.9% of patients self-reported as homeless without being prompted, 58.1% reported a known shelter as their address during registration, and 27% were identified as homeless by social work or ED staff members (Ku et al., 2014). A tremendous 85% of unstably housed individuals would not have been identified if the care team had not undertaken supplementary efforts to more accurately identify the housing status of patients (Ku et al., 2014). Still, the study acknowledged that the actual number of patients experiencing homelessness in its study population was grossly underestimated. In fact, a reported study limitation was inconsistent documentation of patient housing status and it acknowledged the quality of data would have been more accurate if a system was established to ensure improved identification of individuals experiencing homelessness or housing instability (Ku et al., 2014).

Lee et al. (2019) conducted a cross-sectional study to compare the prevalence of homelessness measured via a prospective housing screen with the prevalence of homelessness determined by a retrospective chart audit. The study consisted of 1,208 patients and revealed that homeless status is frequently unidentified for ED presenters which contributes to poorer outcomes (Lee et al., 2019). Homeless patients were found to be four times more likely to represent to the ED within 28 days compared to securely housed individuals (Lee et al., 2019). This indicates that the knowledge of patient housing status is necessary for delivering adequate

treatment plans with necessary referrals. Moreover only 45% of patients identified as homeless via the screening were identified as homeless based on the registration address (Lee et al., 2019). Thus, if administrative data continues to underrecognize the prevalence of homelessness, governments and services are unlikely to invest in homeless health services if a need cannot be clearly indicated (Lee et al., 2019). Lee et al. (2019) recommends that despite time pressures ED staff experience, a simple universal screening should be utilized to improve administrative data sets and flag patients for consistent deployment of social service referrals.

Montgomery, Fargo, Byrne, Kane, and Culhane (2013) conducted a retrospective study on behalf of the US Department of Veteran Affairs. The aim of the study was to determine if a national, health system-based screening instrument effectively enhanced the identification of veterans who had become homeless or were at imminent risk of homelessness, to ensure they were referred for appropriate assistance (Montgomery et al., 2013). The sample size included a total of 1,422,038 veterans who presented for the screening process. The first question asked, "In the past two months, have you been living in stable housing that you own, rent, or stay in as part of a household?" (Montgomery et al., 2013, p. 210). The second question asked, "Are you worried or concerned that in the next two months you may NOT have stable housing that you own, rent, or stay in as part of a household?" (Montgomery et al., 2013, p. 210). Of those screened, 0.9% reported current homelessness and 1.2% reported being at risk for housing instability, resulting in a total of 2.1% positive screens (Montgomery et al., 2013). The study concluded that the screening instrument was effective and accurate for determining the prevalence of homelessness and homelessness risk amongst veterans as well as targeting homelessness prevention interventions (Montgomery et al., 2013).

Tsai, Weintraub, Gee, and Kushel (2005) conducted a cross-sectional study to assess the agreement between patient reports of housing status on a questionnaire with clinical administrative data about homelessness. The sample size included 129 patients who met the eligibility criteria and were interviewed. Since hospitals are not required to collect or report homelessness data, the study determined that the lack of standardization in ascertaining housing status hampers communication, planning, and overall care delivery for this especially vulnerable population (Tsai, Weintraub, Gee, and Kushel, 2005). Retrospective chart reviews were only able to identify 25.6% of the homeless patient population. Meanwhile, 64.8% physicians, 16.8% RNs, and 93.6% of social workers were found to have noted housing status during their documentation. For 20% of confirmed homeless patients, no clinician noted they were homeless in the medical record (Tsai, Weintraub, Gee, and Kushel, 2005). In instances where housing status was documented, there were substantial disagreements between clinical, administrative, and structured questionnaire data. Therefore, Tsai, Weintraub, Gee, and Kushel (2005) strongly advise hospitals to implement a gold standard screening process and common nomenclature around housing status so it is universally understood across clinical disciplines. Only through a common process will clinicians be prepared to redesign interventions based on need, ensure the highest level of patient care, and serve as experts to national policymakers (Tsai, Weintraub, Gee, and Kushel, 2005).

Project Stakeholders

A key component to project success requires involving all stakeholders who have a vested interest in the improvement process of homeless and at risk homeless patient care delivery. The project stakeholders in this benchmark study include senior level management, specifically the director of emergency services, the chief nursing officer (CNO), and chief

financial officer (CFO). Stakeholders who will be involved in the actual evidence-based screening process and downstream necessities include: the ED manager and director, the ED educator, RNs (especially those who are assigned to triage), social workers, providers including physicians and nurse practitioners, ED technicians, the department of nursing informatics, and community resource programs. Only through effective collaboration and feedback from all stakeholders will the project be successfully developed, deployed, evaluated, and sustained.

Senior management buy-in is necessary to ensure essential resources will be available and allocated to the initiative. Department leaders will play a vital role in bringing the project from theory to practice and ensuring frontline staff members are held accountable to following the new protocol expectations. Social workers play a vital role in maintaining a rapport and strong partnership with local programs so their services may be fully utilized by patients in need. Finally, triage nurses must be willing to embrace the new screening protocol and do so with empathy, avoiding overgeneralizations and judgements. This project will only be successful if each stakeholder upholds their personal responsibility and commitment to improving care for unstably housed individuals.

Implementation

The first step for implementing the additional screening questions to the ED triage flowsheet will be to gain buy-in and support from senior leadership including the department director and CNO. Data from the evidence-based literature review will be presented and the findings that support the initiative will be discussed along with the potential for cost savings and decreased return visits. Only upon gaining support from administrative leaders will the project move forward.

Step two will involve a series of collaborative meetings with the department of nursing informatics to physically implement the screening questions within the flowsheet, including flagging the chart, and automatically deploying a social work consultation for positively screened patients. Further, the project leader and informatician will work to create an online learning module that comprehensively familiarizes ED triage nurses to the new screening process and protocol.

Step three will involve meeting with the director of social work services to ensure the proper tools and staffing are in place to adequately accommodate the anticipated influx of ED consultations. The project leader will also collaborate with the department of social work to create homeless resource packets for patients who are unable to receive a social work consultation during the time of their encounter.

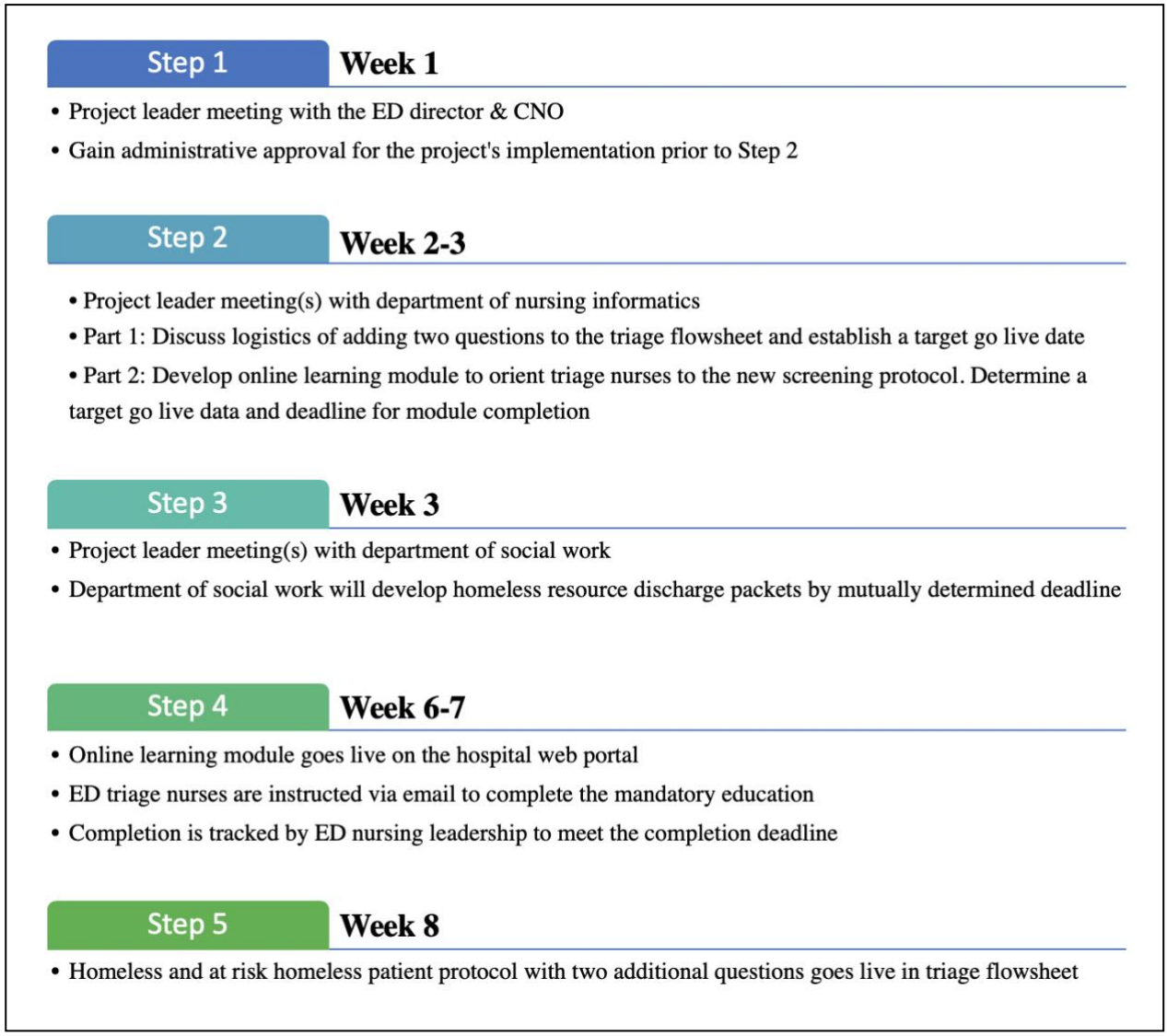
Step four will be the deployment of the online learning module to triage nurses. A link to the module will be sent via hospital email and will be accessed through the organization's online learning portal. The unit manager will monitor staff completion of the modules and ensure all mandated nurses have completed the education prior to being assigned to work in the triage area.

Step five will be the go live date for the new screening process. As previously discussed, two additional questions related to current and future patient housing status will be mandatory during the triage process.

Timetable

If an organization's informatics department is robust enough to internally modify the triage flowsheet, rather than contracting the work externally to a software company informatician, the implementation process is expected to take approximately eight weeks. If the organization requires the assistance of an external clinical information specialist, the

implementation process could take up to 16 weeks. Further, this timeline is based upon the prospect that no additional employees will need to be hired for project success. The department of social work will internally allocate two additional social workers to the ED and resource packets will be utilized for hours when there is a gap in social work staffing. If an organization must hire additional employees such as social workers for a successful implementation, the timeline would increase to approximately 18 weeks.



Data Collection Methods and Evaluation

The first step of the evaluation process will be conducted eight weeks after the new screening protocol has been in effect. A link to an online survey will be sent to ED social workers and triage RNs via email. The survey will include three Likert scale questions with an optional comment section (Appendix A). The purpose of the survey will be to gauge staff perception as to whether or not the initiative has been successful for improving the identification of homeless and at risk homeless patients. The rankings will be strongly agree (five points), agree (four points), neutral (three points), disagree (two points), and strongly disagree (one point). The statements will be written as follows: the screening questions are appropriately stated, the screening questions increase the accurate identification of homeless and at risk homeless patients in the ED, the screening questions have allowed for increased social work involvement and/or distribution of homeless community resources. The feedback from the Likert scale responses will be analyzed using a five to one point system to create interval data that allows for parametric testing. Microsoft Excel will then be utilized to compute the previously discussed domain scores into percentages, standard deviations, and means. If the data reveals greater than 50% of those surveyed agree that the implementation is worthwhile, the change will be considered positively received by staff.

The second step of the evaluation process will be determined by retrospective chart reviews approximately ten weeks after the housing status screening has been added to the ED triage flowsheet. The chart reviewer will examine the triage flowsheet, nursing progress notes, social work consultation notes, provider history and physical assessment, discharge plan, and discharge instructions. The reviewer will ultimately determine the percentage of positively screened patients who received a social work consultation. The project will be considered

successful if 85% or more patients with positive screens received a social work consultation within 90 minutes of the order's initiation. If the goal is not met, the project champion will conduct collaborative group interviews with the ED social workers to better understand what barriers led to the delayed consultations. Based on the new insight, action plans will be developed and set in place. If a patient did not receive a social work consultation, the reviewer will examine if the reason for the lack of consultation was charted by an ED staff member. Per the new protocol, in instances where social work consultations are unable to be conducted, due to a lack of social work staffing or patient refusal, patients with a positive screen should receive a homeless resource packet. The chart reviewer will identify if the bedside nurse documented the inclusion of the homeless resource packet upon patient discharge in lieu of the social work consultation as directed by the protocol. The implementation will be considered successful if a mean of 75% of patients who are unable to receive a social work consultation, receive a homeless resource packet and the nurse properly documents.

Part of the step two evaluation will involve protocol performance and compliance tracking to ensure the protocol change is being properly carried out by staff members. Performance tracking will be conducted through random weekly chart audits. If particular staff members are identified as consistently non-compliant with the protocol, mitigation of non-adherence will be conducted in real time by unit leaders to ensure the desired improvements are met.

The third step of the evaluation process will take place fifty two weeks, or one year, after the screening process has been initiated. A second round of retrospective chart reviews will be conducted to examine the number of return ED visits by patients flagged as homeless and at risk for homelessness. Overall, the evidence-based change implementation will be considered

successful if 30% or fewer flagged patients had a return visit to the ED within 90 days of the initial encounter. This will reveal the streamlined process of identifying unstably housed patients, and deploying outpatient resources, was successful for reducing non-acute ED utilization and improving outpatient care continuity. Since this is a new protocol, the data will not be comparable initially, but it will serve as a baseline to benchmark future data which can be evaluated internally and externally.

Cost and Benefits

The costliest aspect to this project's deployment will be informatician hours, RN module training completion, and social work training and resource packet development. Since employees within the department of nursing informatics are salaried, no additional monies will require allocation. The flowsheet modification and online learning module development are expected to account for 20 total working hours split between two people. The weekly salary of a nurse informatician is approximately $1,905 for a 40 hour work week. Therefore, if two informaticians are assigned to work on this project, it will cost the organization a one-time fee of $952.50. The mandatory online training module for RNs is expected to take no more than 30 minutes to complete. It is anticipated that 100 RNs will be required to complete the training at an hourly rate of $30. Therefore, the organization will pay approximately $1,500 for RNs to comprehensively learn the new protocol and screening process.

In the department of social work, all employees are in salaried positions based on a 40 hour work week. It is predicted that four, one hour meetings will take place with the director of social work. The director of social work is salaried, but the median hourly wage is approximately $45, therefore 4 hours would account for $180. Finally, the development of the social work homeless and at risk homeless resource packets will be developed during periods of

downtime, so no additional costs are needed. The resource packets will be developed between the department of social work and the communications department and is estimated to cost under 50 cents per packet. The supplies including paper, pamphlets, cardstock, and printer ink are expected to cost a total of $500 for 1,000 packets. Therefore, the total project cost will be approximately $3,132.50.

The cost of this evidence-based implementation screening process is minute compared to the expected cost savings of reducing the number of ED visits by unstably housed individuals, most of whom are uninsured (Ku et al., 2014). An urban academic medical center with a level one trauma center determined the total ED charges for identified homeless users were $4,812,615 and outstanding payments were $802,600 (Ku et al., 2014). Meanwhile, Lin, Bharel, Zhang, O'Connell, and Clark (2015) suggested that moving one person from the streets to stable housing has the potential to reduce ED visits by half and hospitalizations by one quarter or more. Therefore, if this initiative successfully prevents one patient from returning to the ED within a 90 day period through the increased deployment of social service support, the program will pay for itself and more. On the macro level, by interceding on behalf of homeless patients, this organizational initiative will help the surrounding community remediate problems created by people living on its streets.

Overall Discussion

Early in the master's in nursing (MSN) program, the development of a PICOT question was initiated and has since evolved substantially. The author was originally interested in understanding the cost of unreimbursed care to hospitals by homeless patients frequently utilizing ED services in the United States. However, the topic was too narrow due to lack of high quality, scholarly evidence. In January 2020, the scope of the PICOT research question was

broadened to its current format which has allowed for sufficient evidence to support the intervention discussed. After consulting with course faculty, it was determined this project would be a Benchmark Study with the hopes of future implementation in the Fall of 2020. See Appendix B for a detailed timeline of project events.

Administrative nursing leaders agree that there is a clear need for the evidence-based intervention proposed. Further, frontline managers have expressed buy-in that this simple screening process would offer a substantial return on investment for both the organization as well as patient health and wellbeing. Meanwhile, existing homeless community programs have conveyed how this initiative would help drive a stronger partnership between their organizations and acute care facilities. It is encouraging that medical and non-medical professionals alike agree that there is a need for policy initiatives to protect homeless and at risk homeless patients. Following two years of discussions, it is clear the necessary change agents and stakeholders are open to new methods for driving meaningful improvement. It is the author's hope that this discussion will open a door to future implementation.

Recommendations and Conclusion

As trusted professionals, nurses are looked upon to protect the rights, health, and safety of patient populations with honesty, integrity, and evidence-based knowledge (American Nurses Association [ANA], 2015). Yet, too often unstably housed patients slip through the cracks of America's overwhelmed health care system and do not receive adequate care that strives to improve their arduous situation (Ku et al., 2014). By implementing a new, nurse driven, evidence-based screening process, the care team will be more likely to set aside bias or prejudice that may exist, allowing patients to become engaged and empowered shared decision makers (ANA, 2015).

Ultimately, the deployment of a universal screening in the ED is expected to increase the identification of unstably housed patients so they may be connected to existing community resources and out-of-hospital support services for long-term support (Mitchell et al., 2017). Meanwhile, from an organizational standpoint, more reliable data collection will equip frontline leaders to more effectively track utilization patterns and cost thereby improving the stewardship of limited organizational resources (Amato et al., 2019).

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Appendix A

Likert Scale Questionnaire

	LIKERT SCALE QUESTIONAIRE	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
	Question	**1**	**2**	**3**	**4**	**5**
1	The screening questions are appropriately stated.					
2	The screening questions increase the accurate identification of homeless and at-risk homeless patients in the ED.					
3	The screening questions have allowed for increased social work involvement and/or distribution of homeless community resources					

COMMENTS:
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Appendix B

Benchmark Study Project Timeline